

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

**SUBJECT:** Further Evaluation of HW1, HW2, HW3, and 31 Jan 2012  
HW5 in Dimock, PA

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**TO:** Richard Fetzer, OSC  
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From a toxicological perspective, I reviewed the analytical data provided to me on 26 Jan 2012 for HW1 (Ex. 6 - Personal Privacy) HW2 (Ex. 6 - Personal Privacy) HW3 (Ex. 6 - Personal Privacy) and HW5 (Ex. 6 - Personal Privacy) in Dimock.\* Of these, only two wells, HW1 and HW3, contain contamination of significance under U.S. EPA's Superfund Program, as discussed below.

### **HW1 and HW3**

As identified in a previous review of the data, 2-methoxyethanol was reported at concentrations of 1300 and 1100 ug/L in HW1 and HW3, respectively. Exposure by a child to these levels of 2-methoxyethanol generates respective Hazard Quotients (HQs) of approximately 17 and 14; both these HQs exceed the trigger for an imminent and substantial threat.

The toxicity criterion on which this conclusion is based is provisional (Tier 2), meaning that it has not undergone the extensive external peer-review process of the near bullet-proof Tier 1 values. The toxicity criterion for 2-methoxyethanol was established recently (April 2011) by U.S. EPA's Office of Research and Development and has a medium level of confidence associated with it. At typical Superfund sites, provisional toxicity criteria are often used without challenge in the decision-making process.

Given 1) the potential risks associated with exposure to a compound that is not naturally-occurring, as well as 2) the literature indications that 2-methoxyethanol is associated with some gas well drilling operations, further evaluation of this contaminant in private potable wells in Dimock should be considered.

If you have any questions, please let me know.

\*The data sets evaluated for this assessment were provided by Stephanie Wenning on 26 Jan 2012. Two comprehensive data files were included for each homewell (HW1, HW2, HW3, and HW5); in many instances, duplicate data were presented in the files. These are the most thorough data sets I've reviewed to date, and the primary sources of the analytical findings appear to be Cabot and PADEP. The files provided to me contain a column identifying the source reports, and can be referenced for more detail in this regard.



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